## ABSTRACT OF DISCLOSURE

An apparatus and method of using a in situ finishing information for finishing semiconductor wafers is described. The method uses operative sensors such as friction sensors for detecting and improving control during finishing. The method can aid control of finishing while using in situ finishing information and cost of manufacture information. The method can aid control of finishing while using organic lubricants, lubricating films, and lubricating boundary layers in the operative finishing interface. The method can generally aid control of differential finishing such as when using differential lubricating films such as lubricating boundary layers. Control can generally aid improvement of differential finishing of semiconductor wafers. Planarization and localized finishing can used with in situ finishing information such as differential lubricating boundary layer for finishing. Defects can generally be reduced using the in situ friction finishing information method. Real time improvements to cost of manufacture semiconductor wafer manufacture can be made by tracking and using current in process cost of manufacture information and cost of manufacture parameters. The semiconductor wafers can be tracked individually or by process group such as a process batch. Abrasive finishing surfaces can be used. Tribochemical finishing can generally be improved.